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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/736,709	12/17/2003	Yong-Sung Ham	0630-1835P	5806

2292 7590 07/13/2009
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EXAMINER	
CHACKO DAVIS, DABORAH	

ART UNIT	PAPER NUMBER
1795	

NOTIFICATION DATE	DELIVERY MODE
07/13/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary	Application No.	Applicant(s)	
	10/736,709	HAM, YONG-SUNG	
	Examiner	Art Unit	
	DABORAH CHACKO DAVIS	1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 April 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,4,7-12,14-16,28,29,33 and 34* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,4,7-12,14-16,28,29,33 and 34* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 33-34, are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claims 33, and 34, recite "the first roll and the second roll". The specification only teaches a printing roll. The specification does not teach a first roll or a second roll or that the printing roll is a plurality of rolls. Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-2, 4, 7-12, 14-16, and 28-29, are rejected under 35 U.S.C. 103(a) as being unpatentable over U. S. Patent No. 6,001,515 (Evans et al., hereinafter referred

to as Evans) in view of JP 09-318805 (Kondo et al., hereinafter referred to as Kondo), and U. S. Patent No. 5,850,271 (Kim et al., hereinafter referred to as Kim).

Evans, in col 5, lines 22-30, and lines 48-67, in col 6,lines 1-4, in col 12, lines 62-67, in col 13, lines 1-10, and in figure 1B, discloses forming a resist pattern on the panel (LCD panel on the substrate i.e., the object layer is divided into plurality of divided areas, see figure 1A) by transferring the resist material (radiation curable ink) from the grooves of the cliché (intaglio roller) onto the transfer layer (blanket), by rotating and contacting the surface of the intaglio roller (cliché). Evans, in col 2, lines 9-15, discloses that the LCD comprises a TFT. Evans, in col 5, lines 48-67, in col 8, lines 20-24, discloses that the transfer layer (blanket) is applied onto the collector roll (printing roll) prior to transferring the resist in the grooves (resist pattern) to the printing roll, transferring the resist pattern onto the transfer layer (blanket), and then transferring the resist pattern on the transfer layer by rolling the collector roll (printing roll), with the transfer layer and the resist pattern on the transfer layer, onto the glass substrate (etching object layer). Evans, in col 9, lines 12-17, discloses that the transfer layer improves the adhesive force with the resist (remains sticky or tacky to contact and remove the pattern from the intaglio roller) (claims 1, 11-12, and 28-29). Evans, in col 9, lines 12-65, in col 12, lines 62-67, in col 13, lines 1-5, and in figures 4, and 5, discloses that the circumference and shape and height and size of the blanket (transfer layer) is the same as that of the collector roll's (cylindrical shape, see figures 2-5), and that the area of the blanket (transfer layer) is less than that of the etching object layer (glass substrate), and the area of the substrate is a whole multiple of the area of the

blanket (claims 2, 4, 7). Evans, in col 3, lines 20-21, and lines 47-53, and in col 6, lines 6-9, discloses that the etching object layer can be a glass substrate (i.e., SiO_x) and/or that the etching object layer can be a TFT (i.e.., TFT includes at least a metal layer), and/or that the etching object layer can include an ITO layer (i.e., semiconductor layer) (claims 8-10, and 14-16).

The difference between the claims and Evans is that Evans does not disclose that the cliché is divided into a plurality of areas (portions) corresponding to the divided areas (plurality of divided areas) of the substrate. Evans does not disclose that each of the unit panel has the claimed gate lines or data lines defining the claimed plurality of pixels.

Kondo, in the abstract, and in paragraph nos. [0001], [0019], [0020], [0022], and in figure 2, discloses that the intaglio (cliché) is divided into a plurality of areas (LCD pattern) corresponding to that of the divided areas of the substrate (the substrate can be a LCD color filter); i.e., the LCD pattern of the cliché (intaglio) has grooves and the claimed plurality of areas (plurality of portions), and the substrate is also an LCD filter i.e., the grooves and the areas (portions) correspond to that of the intaglio (cliché); and thus the resist in the grooves of the first divided portion of the cliché (intaglio) is applied via the printing roll onto the corresponding first area of the LCD substrate, and the resist in the grooves of the second divided portion of the cliché (intaglio) is applied via the printing roll onto the corresponding second area of the LCD substrate, and so on.

The difference between the claims and Evans in view of Kondo is that Evans in view of Kondo does not disclose that each of the unit panel has the claimed gate lines or data lines defining the claimed plurality of pixels.

Kim, in col 1, lines 16-25, discloses that the LCD panel comprises a TFT, and has a plurality of pixels each pixel including a pixel electrode and a thin film transistor, wherein gate lines and data lines of matrix type are formed between the individual pixels.

Therefore, it would be obvious to a skilled artisan to modify Evans by employing an intaglio (cliché) as suggested by Kondo because Kondo, in [0018], and [0019], discloses that using the cliché (intaglio) that has a pattern that is the same as that of the substrate (LCD) enables the reproduction of the detailed pattern with a high degree of accuracy. It would be obvious to modify Evans in view of Kondo by employing the claimed LCD substrate as suggested by Kim because Evans in col 1, lines 22-25, and in col 2, lines 13-15, discloses that the LCD substrate is a thin film transistor LCD display panel, and therefore will have the same claimed structure.

Response to Arguments

5. Applicant's arguments, see Remarks, filed on March 16, 2009, with respect to claims 1-2, 4, 7-12, 14-16, 28-29, have been fully considered and are persuasive. The 103 rejection made in the previous office action (paper no. 20081208) has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of US Patent No. 5,850,271 (Kim et al). See paragraph no. 3, above.

A) Applicants argue that none of the references disclose the claimed plurality of unit panels with the claimed structure and the claimed printing process.

Neither Evans nor Kondo is relied upon to disclose the claimed LCD structural limitation. Kim is relied upon to disclose the TFTLCD display panel with the claimed structural limitations. Evans teaches the transfer of the resist in the grooves to the etching object layer via the blanket applied on the printing roll, wherein the area of the resist in the grooves and the area of resist transferred to the etching object layer correspond to each other. Kondo is relied upon to disclose that the intaglio (the claimed cliché) is an LCD, wherein the LCD has plurality of grooves and has plurality of areas and Kondo, also discloses that the substrate to which the resist is transferred to is also an LCD filter, and the LCD filter corresponds to that of the intaglio i.e., the resist from the grooves in the first area or first portion of cliché is transferred to the corresponding first area of the LCD filter (etching object layer) via the printing roll, and similarly, the resist from the second area or second portion of the intaglio is transferred to the corresponding second area of the LCD filter (etching object layer), and so on. Therefore the combination of Evans in view of Kondo and Kim teaches the claimed limitations.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daborah Chacko-Davis whose telephone number is (571) 272-1380. The examiner can normally be reached on M-F 9:30 - 6:00. If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Mark F Huff can be reached on (571) 272-1385. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Daborah Chacko-Davis/
Examiner, Art Unit 1795

July 2, 2009.